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Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (Currently Amended). ~~Targeted~~ A fused chimeric ~~toxins~~ protein comprising a linear genetically engineered molecule consisting essentially of peptide bonds, produced by fusing, at the level of cDNA:

A. DNA encoding at least one cell targeting moiety ~~encoding~~ consisting essentially of Met-GnRH or a Met-GnRH analog ~~recognizing~~ that specifically binds to GnRH binding sites on Caco2 adenocarcinoma ~~specific~~ cells ~~bearing gonadotropin releasing hormone binding sites~~; and

B. DNA encoding at least one cell killing moiety ~~that kills specific cells bearing gonadotropin releasing hormone binding sites, wherein the at least one cell targeting moiety consists essentially of gonadotropin releasing hormone and the at least one cell killing moiety consists essentially of a cell killing toxin;~~

~~wherein said chimeric toxins bind directly to GnRh binding sites on adenocarcinoma cells, benign uterine lyomyoma cells, endometrial island cells and/or pituitary tumor adenoma cells; and~~

~~wherein said chemeric toxin is a linear protein consisting essentially of peptide bonds~~.

2 (Cancelled)

3 (Currently Amended). ~~Targeted~~ A fused chimeric ~~toxins~~ protein according to claim 1, produced by fusing at the cDNA level an oligonucleotide encoding ~~ten amino acids of a~~ gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a mutated DNA fragment of the full length *Pseudomonas* exotoxin ~~Pseudomonas Exotoxin~~ (PE), encoding the protein Met-GnRH-PE66.

4 (Currently Amended). ~~Targeted~~ A fused chimeric ~~toxins~~ protein according to claim 1, produced by fusing at the cDNA level an oligonucleotide encoding ~~ten amino acids of a~~ gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a DNA fragment comprising domains II and III of the *Pseudomonas* exotoxin ~~Pseudomonas Exotoxin~~ (PE), encoding the protein Met-GnRH-PE40.

5 (Currently Amended). A method for the production of a ~~targeted~~ chimeric ~~toxin~~ protein as defined in claim ~~1~~ 3, ~~wherein said chemira comprises GnRH-PE66,~~ comprising ligating an oligonucleotide encoding ~~ten amino acids of a~~ gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, upstream ~~to~~ of a DNA fragment encoding a mutated form of PE, under conditions sufficient to produce a ~~targeted~~ chimeric ~~toxin~~ protein comprising Met-GnRH-PE66.

6 (Currently Amended). A method for the production of ~~an adenocarcinoma cell targeted~~ a chimeric ~~toxin~~ protein as defined in claim ~~1~~ 4 that targets adenocarcinoma cells, ~~wherein said chimera comprises GnRH-PE40,~~ comprising ligating

an oligonucleotide encoding ~~ten amino acids of a~~ gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, upstream to a DNA fragment encoding domains II and III of the PE, under conditions sufficient to produce a ~~targeted~~ chimeric ~~toxin~~ protein comprising Met-GnRH-PE40.

7 (Currently Amended). A composition useful for treatment in cancer therapy comprising as active ~~ingredients~~ ingredient, a chimeric ~~toxins~~ protein as defined in claim 1.

8 (Canceled)

9 (Currently Amended). A method for the treatment of adenocarcinoma or hepatocarcinoma ~~adenocarcinomas therapy~~ in a mammal, comprising administering to the body of a mammal in need of such therapy an effective amount of at least one chimeric ~~toxin~~ protein as defined in claim 1, sufficient to at least reduce the growth of said adenocarcinoma or hepatocarcinoma.

10 (Currently Amended). A method for adenocarcinoma or hepatocarcinoma therapy according to claim 9, ~~further comprising~~ wherein said administering step is by systemic administration of said chimeric ~~toxin~~ protein.

11-20 (Cancelled)

21 (Currently Amended). A plasmid comprising a promoter operably linked to a DNA molecule encoding ~~targeted~~ a fused chimeric ~~toxins~~ protein as defined in claim 1.

22 (Currently Amended). A method of treating a mammal having at least one adenocarcinoma or hepatocarcinoma, comprising administering to said mammal in need thereof, an

amount of a pharmaceutical composition, comprising a ~~targeted~~ chimeric ~~toxin~~ protein as claimed in claim 1, sufficient to ameliorate the effects of said adenocarcinoma or hepatocarcinoma.

23 (Currently Amended). A method of treating a mammal having endometriosis, comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a ~~targeted~~ chimeric ~~toxin~~ protein as claimed in claim 1, sufficient to ameliorate the effects of said endometriosis.

24 (Currently Amended). A method for ~~endometriosis~~ endometrioma therapy according to claim 23, further comprising ~~trans~~ trans-cervical washing of the mammal's endometrial cavity.

25 (Currently Amended). A method of treating a mammal having a uterine myoma, comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a ~~targeted~~ chimeric ~~toxin~~ protein as claimed in claim 1, sufficient to ameliorate the effects of said uterine myoma.

26 (Currently Amended). A method of treating a mammal having a pituitary adenoma, comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a ~~targeted~~ chimeric ~~toxin~~ protein as claimed in claim 1, sufficient to ameliorate the effects of said pituitary adenoma.

27 (Currently Amended). A method of treating a mammal having BPH, comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a ~~targeted~~ chimeric ~~toxin~~ protein as claimed in claim 1, sufficient to ameliorate the effects of said BPH.

28 (Currently Amended). A method of treating a mammal having polycystic breast disease, comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a ~~targeted~~ chimeric ~~toxin~~ protein as claimed in claim 1, sufficient to ameliorate the effects of said polycystic breast disease.

29 (Cancelled)

30 (Currently Amended). A ~~targeted~~ chimeric protein comprising a genetically engineered molecule comprising a fusion of-

at least one cell targeting moiety consisting essentially of ~~a~~ gonadotropin releasing hormone (GnRH) preceded by a Met (Met-GnRH) or a Met-GnRH analog that specifically binds to GnRH binding sites on Caco2 adenocarcinoma; ~~moiety, having up to 10 amino acid groups starting with Meth and having glycine as the sixth amino acid;~~ and

at least one cell killing moiety ~~that kills specific cells bearing gonadotropin releasing hormone binding sites~~.

31 (Currently Amended). A fusion protein as claimed in claim 30, wherein said cell killing moiety comprises *Pseudomonas* exotoxin ~~Pseudomonas Exotoxin~~ A.

32 (Currently Amended). A fusion protein as claimed in claim 30, that is a single protein.

33 (Currently Amended). A fusion protein as claimed in claim 30, that has no linking moiety between said cell killing moiety and said cell targeting moiety.

34 (Cancelled)

35 (Currently Amended). A fusion protein as claimed in claim 29, wherein said chimeric protein recognizes and/or binds to GnRH-binding sites on adenocarcinoma and hepatocarcinoma cells~~,~~. ~~benign uterine lyomyoma cells, endometrial island cells and/or pituitary tumor adenoma cells.~~

36 (New). A fusion protein as claimed in claim 29, wherein said cell targeting moiety is a Met-GnRH analog having the sequence of Met-GnRH but having a glycine residue as the sixth amino acid of GnRH.